DOCUMENT RESUME

ED 319 171 EC 230 858

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TITLE Behavior Modification Project: Reducing and Controlling Calling Out Behaviors.
PUB DATE 1 Jan 90
NOTE 12p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Behavior Change; *Behavior Problems; *Classroom Communication; *Classroom Techniques; *Emotional Disturbances; Intermediate Grades; Intervention; Outcomes of Treatment; Student Behavior; Teacher Student Relationship
IDENTIFIERS *Disruptive Behavior; *Self Monitoring

ABSTRACT

The purpose of this study was to determine which behavior modification procedures were the most effective in reducing and controlling the inappropriate calling out behavior of a fifth-grade socially and emotionally disturbed student. Three phases of interventions were involved. As the study began, the resource room instructor was using a behavior modification system based on a token economy. Subsequently, a group contingency approach was used to reinforce appropriate behavior; students were given a cardboard cube with messages for the teacher, to limit unnecessary oral teacher-student communication; in addition, the seating arrangement was changed. In phase two, a class meeting was held to discuss the problem of calling out behavior, the students participated in a role playing activity emphasizing the importance of raising one's hand to be called on, and writing notes reading "Do Not Call Out In Class" were posted on each student's desk. Phase three involved a private confrontation with the subject about his behavior, establishment of a self-recording program, and development of a behavior contract. Data showed that the first two phases did not achieve the desired results of reducing the student's calling out behavior. The most effective technique used was the self-recording treatment. Seven references are cited. (JDD)

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BEHAVIOR MODIFICATION PROJECT: REDUCING AND CONTROLLING CALLING OUT BEHAVIORS

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JANUARY 1, 1990

EC 230258

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INTRODUCTION

This study investigates the processes involved in modifying the disruptive calling out behaviors of a socially and emotionally disturbed fifth grade student. At the time of this investigation, the student's resource room instructor and homeroom teacher had classified the behavior as "disturbing" and "uncontrollable". The rationale for targeting the calling out behavior is that it had become an impediment to the instructional flow. Schmidt and Ulrich (1969) emphasize that when maladaptive behaviors do arise, they should be dealt with before they are allowed to reach critical proportions. In this case, previous attempts by the resource room instructor to manage and reduce this student's calling out behavior, were met with disapprobation and therefore were unsuccessful.

Because of the severity of the behavior, the ABA method of design was manipulated in such a way that three phases of interventions were involved. The first two phases, each using three different behavior modification techniques, did not achieve the desired results of reducing the student's calling out behavior. The third phase of the intervention process involved directly confronting the student about his behavior. When this occurred, the student indicated that he was cognizant of the existance of the calling out behavior but denied awareness of the frequency of the behavior. The student intimated that he did not "like being picked on all the time" and showed an interest in altering his behavior in order to "keep out of trouble." Alexrod (1983) observed that students who appear to be strongly motivated to alter their behavior were likely to benefit from a self-recording procedure.

Results indicated that for this student the self- recording procedure was the most successful intervention for reducing and managing his inappropriate behavior of calling out during instructional time. The implication of this study is simply that, regardless of the previous successes noted for each behavior modification technique that was used in this study, it was necessary to manipulate and proceed through a number of techniques until a palatable remedy could be determined for this individual.

METHOD

The purpose of this study was to determine which behavior modification procedures were the most effective in reducing and controlling the inappropriate calling out behavior of a fifth grade SED student.

SUBJECT

"John" is a SED fifth grade mainstream student attending an urban public school. Currently, John receives his math instruction on a daily basis from 10:40AM - 11:30 AM in a resource room and is one of twelve students in the class. The subject's chronological age at the commencement of this investigation was 11.3 years and is receiving no other support services other than attendance in the resource room for math instruction.

John's school records indicate that his I.Q. is within the normal range (type of test and verification of results were not available) and that behavior is the major contributory factor in the student's inability to achieve more significant academic success.

The student's health records indicate that in November of 1987, the student went into full cardiac arrest and required emergency cardiac resuscitation. Currently, John is being treated for a stomach ulcer and is on daily oral medication for the treatment of asthma. The school nurse suggested that the student's state of health

is greatly effected by his "tendency to be nervous and anxiety ridden."

The student is officially labeled socially and emotionally disturbed. The school psychologist notes the subject's home environment is "supportive and the parents appear to have a stable marriage." Although not officially stated, the school psychologist feels that John may have some form of a "chemical neurological imbalance" which could be a contributory factor in his current psychological and physical condition.

SETTING AND MATERIALS

This investigation took place in the resource room which is located on the third floor of the school building. The room itself contained two teacher's desks, twelve student's desks with attached chairs, two blackboards and a sink which is located by the door. A guinea-pig and a fish tank (filled with water but containing no fish) were also present. The seating arrangement consisted of five desks in the front row, four desks in the second row and three desks in the last row. John sat in the center desk in the front row.

The materials used during this study included twelve message cubes, index cards with the words "Homework Pass" printed on them, and a paper bag containing eleven blank index cards and one index card with the words "No Weekend Homework" printed on it. Twelve yellow pieces of paper with the words "DO NOT CALL OUT IN CLASS" were also used.

INTERVENTIONS

As this study began, the resource room instructor was using a behavior modification system that was based on a token economy. During class, each student had the opportunity to earn three points: one point for completing homework, one point for maintaining appropriate behavior during class and one point for lining up at the door at the conclusion of class. Points could also be forfeited by not completing the homework assignment and for not lining up at the door in the prescribed manner. The point that was earned for appropriate behavior during class could be lost when the student obtained a "strike three". (Strikes one and two were used as warnings) The student(s) who earned the most points by the end of the week was awarded a homework pass. The pass could be handed in in exchange for a completed homework assignment. In order not to break the continuity of this existing system, the interventions used in this study were manipulated so that they acted as supplements or enrichments to the token economy system already in place.

PHASE ONE: Group Contingency, Message Cubes and a DRO

It had been decided that John and his peers should not be aware that John was the target of an investigation. Axelrod (1983) suggests that when teachers are hesitant

to administer reinforces to only one student because of the possibility of negative reactions from classmates, group contingencies can be an effective way to reinforce appropriate behavior. Therefore, a group contingency activity was initiated.

All the student's names were put up on the chalkboard. If a student got a "strike two", his/her name was erased from the board. On Friday, only those students whose name remained on the board would get a chance to pick one of the index cards out of a paper bag. If the index card with the words "No Weekend Homework" was pulled out of the bag, the entire class would be excused from doing the weekend homework assignment. Obviously, when student's names were erased off the board, the entire class had that much less of a chance of pulling the "No Weekend Homework" pass out of the bag.

The second part of phase one involved the construction of cardboard cubes on which four of the six sides contained "communication cues". Kelly and Bushell, Jr. (1987) explain that transmitting information in this mode can be helpful in limiting unnecessary oral communication between student and teacher. Slade and Callaghan (1988) clarify the usefulness of limiting oral communication:

> Messages such as "I'm working," "I'm finished," and "I need help" can be printed on construction paper strips...so that only one message at a time is visible to the teacher. This limited bank of communications discourages unnecessary, unproductive dialogue, and allows the teacher to make quick assessments of student needs and to prescribe actions appropriate for individual circumstances, minimizing off-task time.
>
> (p.232)

For this study, each student received a cube on which the following messages were printed:

1.) HELP
2.) FINISHED
3.) WORKING
4.) BATHROOM

Also as part of phase one, the seating arrangement was changed. During baseline a very clear pattern emerged; seventy two percent of John's calling out behavior occurred when the teacher physically came within approximately three feet of the student. Based on this observation, the student's desks were rearranged into a "U" shape. John was placed in the back of the "U", thereby eliminating constant physical proximity to the instructor.

All three parts of phase one were introduced to the class as a DRO. (differential reinforcement of other behaviors) Kelly and Bushell (1987) state that teachers may use DRO to decrease talking out behaviors and to increase a desirable behavior such as

hand raising. Therefore, during the initial instructional presentation of the "new" behavior modification system, it was emphasized to the class that the new system was being implemented to increase their hand raising behaviors while calling out was to be eliminated.

PHASE TWO: Classroom Meeting, Role Playing Activity and the Written Note

During the first day of phase two, the group contingency activity and the message cubes were taken away. A classroom meeting was held to explain why the cubes and the grab bag had been eliminated and a discussion about calling out behaviors followed. Sorsdahl and Sanche (1985) cite that classroom meetings involve the whole class as well as the teachers for the purpose of discussion or problem solving. After the discussion, the next stage of the classroom meeting moved into a role taking activity for the purpose of solving the question, "Why is it important to raise your hand in class and wait until you are called on?" Slade and Callaghan (1988) explain the procedures and objectives of the activity:

> "Social perspective taking" is one approach that familiarizes the students with circumstantial demands. The children "become" lifeguards, bus patrol leaders, or theater managers and develop the rules for these situations, explaining why they were selected...Follow up these awareness experiences by discussing the daily classroom schedule and the rules and behaviors that will allow specific activities to run smoothly.
>
> (p.230)

At the end of the classroom meeting/role playing activity, all parties agreed that any student who did not receive a "strike one" during the entire week, would receive a homework pass. Each student then got a yellow colored note which read "DO NOT CALL OUT IN CLASS" which was posted on each student's desk top to remind them to not call out. Slade and Callaghan (1988) explain that short handwritten notes can prevent unnecessary verbal exchanges between students and teachers,

PHASE THREE: Self-recording of the Behavior and a Behavior Contract

Phase three began by returning the class to the original behavior modification system that the resource room instructor had in place at the onset of this investigation. The "U" seating arrangement, however, remained. Then, John was privately confronted about his behavior. As stated previously, John was aware of the existence of the calling out behavior, but not the frequency at with it occurred. John was then encouraged to keep count of how many times he called out without the teacher's acknowledgement. In order to help John with this task, each time John called out, the teacher would raise her hand and make eye contact with the subject. John was instructed to write down a slash mark for each time this procedure occurred. Slade and Callaghan (1988) explain the choice of action on the teacher's part:

> Instead of interrupting a lesson's flow to verbally remind children to raise their hands before asking questions, she (the teacher) raises her own hand after the student has called out and continues with the demonstration. This strategy reminds the entire class of the rule and prevents undue attention from being focused on the student who forgets.
>
> (p.234)

John then provided his own motivation program. He asked,"If I don't call out at all for a whole week, can I get a homework pass?" This was readily agreed to. A behavior contract, as prescribed by Axelrod (1983) , was written up and sighed by both the teacher and the student.

FADING

The behavior contract was allowed to expire and John was put back on the original behavior modification system with the rest of the class. The only remaining intervention was the "U" shaped seating arrangement.

PROCEDURE

For this study, the student teacher was given the responsibility for executing the entire program. A reliability check was undertaken by the resource room instructor during each phase of intervention. In order to accomplish a reliability check, "calling out" had to be defined and recorded in observable concrete measures: the behavior was to registered each time the student produced an oral disclosure (including discernable speech as well as "sounds" such as "Uh Uh!") that was emitted without the teacher's acknowledgement. All five reliability checks that were conducted met or exceeded 92%.

The subject's homeroom teacher was not involved with, nor did he participate in or continue with the program in his classroom. This investigation was therefore isolated in the resource room and was not implemented in any other academic environment. However, generalization was assessed in the homeroom environment. During the fading phase of this study, the student was observed calling out only two times during a half hour lesson on how to use a card catalogue.

RESULTS AND DISCUSSION

The interventions involved in phase one caused an immediate decrease in John's calling out behavior. The peer consequences that Schmidt and Ulrich (1969) describe in the form of threatening gestures, arm moving and facial expressions were seen in this study being directed at John. However, by the forth day of phase one, John began to

show observable signs of frustration at his classmate's constant admonishments. On the fifth day, the day of the grab bag activity, John's name was erased from the board after only five minutes into the class period. John orally proclaimed to his peers, "I don't care." On the sixth day and seventh day of phase one, the behavior continued to escalate. In addition, the student began rattling and crumbling up the cardboard message cube in an attempt to get the teacher's attention. Notwithstanding, it was observed that when the teacher did get within approximately three feet of the subject, he would still attempt to engage her in some form of conservation. Therefore, the "U" shaped seating arrangement was to remain with John still sitting in the back of the "U", so that this form of the calling out behavior was not encouraged.

The impact of phase two on John's behavior was not as immoderate as the initial results seen in phase one. After the class meeting, John's peers appeared to be less concerned with John's behavior. It was theorized that this decrease in the observance of John's behavior by his classmates was because now each student's reward system was dependent only on their own individual behavior. It should be noted that during this phase , the subject lost a point everyday because of a lack of appropriate behavior displayed in class. Despite the fact that the homework pass motivation was eliminated, the behavior did not return to the degree of severity seen during baseline. During the reliability check for phase two, the resource room instructor observed that all patterns of the behavior had returned except for the pattern of calling out during physical proximity because that situation had been eliminated.

Phase three achieved the desired results: it reduced and controlled the calling out behavior to such a degree that it was no longer disruptive to the instructional flow. During baseline, John's behavior encompassed the student's yelling out answers to questions that had been directed towards other students, statements of needs or concerns that were expressed in a narrative of up to five or six sentences and attempts to engage the teacher in conversations that had no relevance to math class. The procedures used in phase three, although not eliminating the calling out behaviors, did limit the call outs to "Miss" or "Miss (name)". In this form, the behaviors were no longer judged as "disturbing" or "uncontrollable" by the subject's resource room instructor or homeroom teacher.

CONCLUSION

Based on the data compiled during this investigation, it is evident that the self-recording treatment was the most effective behavior modification technique used for reducing and controlling the calling out behaviors of this SED fifth grade student. However, the question remains whether or not the self-recording technique would have been as successful without the previous treatments noted in this study. Perhaps it

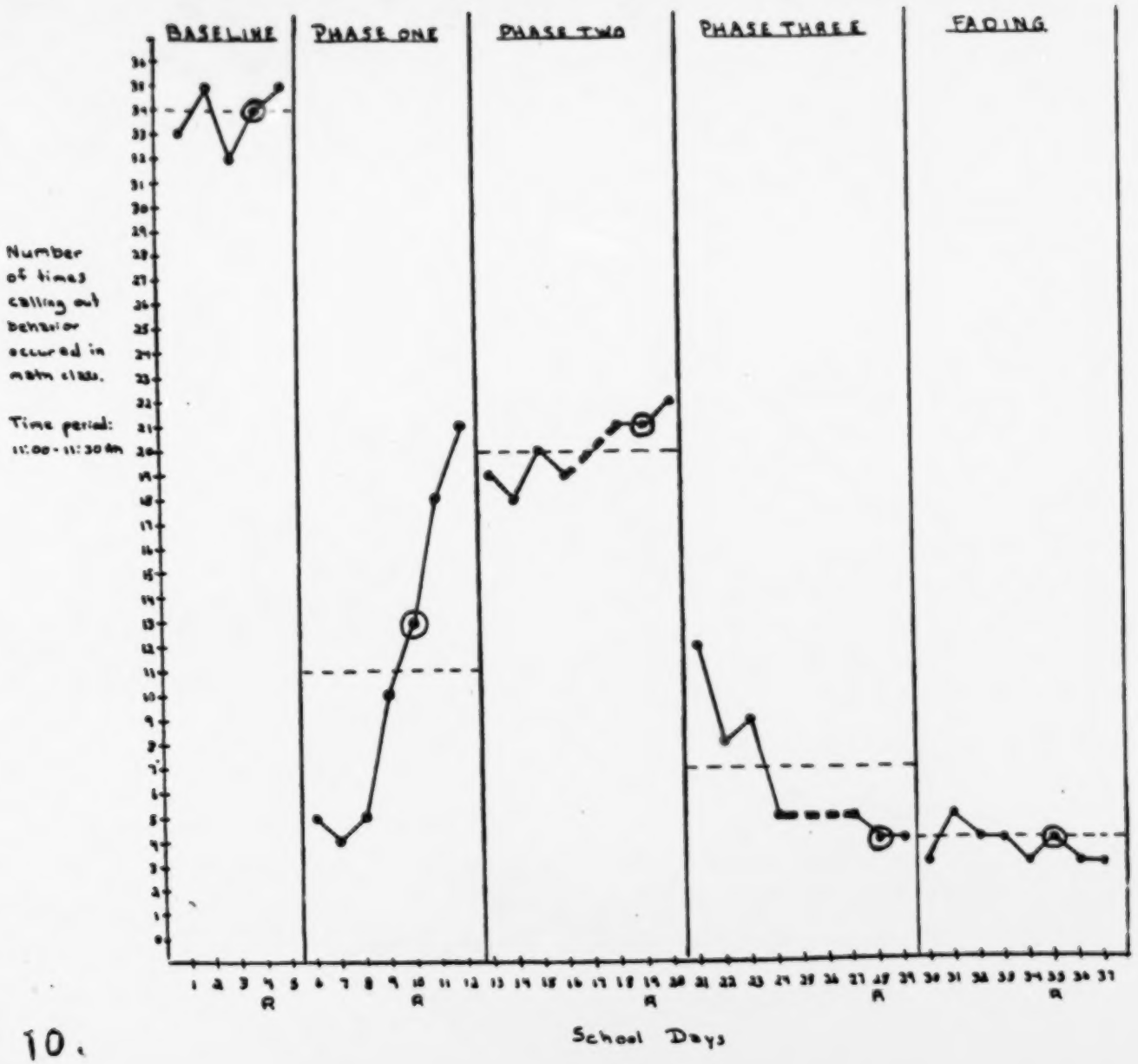
was the previous attempts to control the behavior that made the student aware of the existence of the behavior which made the monitoring of the behavior possible. It would be difficult to justify the success of the self-recording procedure based on its own merit. Axelrod (1983) points out that:

> It is difficult to say why self-recording procedures are effective. It is possible that when an individual keeps a record of her behavior she becomes more aware of it and is more capable of changing it... Even though the reasons for the effectiveness of self-recording are unclear, its advantages are evident.
>
> (p.73)

However, it should be taken under consideration as an effective technique whose success may not be dependent on any other factors which are noted in this study. Therefore, based on this investigation, it is evident that the self-recording technique was successful in controlling calling out behaviors, but whether or not it could have been successful in isolation in this circumstance remains an unanswered question.

In general, what is effective for one student in a particular set of circumstances may not be effective for a different student in any set of circumstances. A number of behavior modification techniques may have to tried until a pattern of success is determined. Also, do not rule out the power of observation and informal assessment. As can clearly be seen, in this study, these two elements played an intricate part in the behavior modification puzzle.

As an addendum, it should be noted teachers may want to determine another motivation for the students other than the homework pass. Although effective, the amount of passes being distributed during this study did become excessive. Therefore, if not pedagogically comfortable with this situation, instructors may want to determine something else that is motivating to the individual or class, whatever the circumstances may dictate.


BASELINE
PHASE ONE
PHASE TWO
PHASE THREE
FADING
Number of times calling out behavior occured in math class.
Time period: 11:00 - 11:30 am
School Days
KEY
A reliability
mean
school closing

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